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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,711	11/08/2001	David Jay Smith	1313/1H649-US1	2757

7590

06/24/2003

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EXAMINER

KUMAR, PREETI

ART UNIT

PAPER NUMBER

1751

DATE MAILED: 06/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/010,711

Applicant(s)

SMITH ET AL.

Examiner

Preeti Kumar

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8,33-37 and 53-79 is/are pending in the application.
- 4a) Of the above claim(s) 1-7,9-32,38-52 and 80-138 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8,33-37 and 53-79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Final Rejection***

1. Claims 8, 33-37 and 53-79 are pending.
2. During a telephone conversation with Jay Lessler on October 24, 2002 a provisional election was made without traverse to prosecute the invention of group II, so the examiner is surprised to find a traversal in the request for reconsideration. However, out of consideration and respect, the examiner is responding to the Applicant's traversal of the restriction requirement. The traversal is on the ground(s) that careful search of the prior art relevant to the claims of Group II would develop prior art relevant to the claims of the remaining groups. (For a more detailed explanation see Applicant's response in paper no. 7, pages 2-4.) This is not found persuasive because Inventions I-IX are unrelated. The different inventions encompass cellulose fibers, crosslinked cellulose fibers, and uncrosslinked cellulose fibers and methods for making the same. Because cellulose fibers, crosslinked cellulose fibers, and uncrosslinked cellulose fibers are not disclosed as capable of use together and they have different functions, or different effects and require at least different consideration if not a different search and thus, restriction for examination purposes as indicated is proper.

The Restriction and Election of Species Requirement is still deemed proper and is therefore made FINAL.

3. The rejection of claims 8 and 33-37 and 53-79 under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 5,728,771) is maintained for the reasons recited in the previous office action and further explained below.

***Response to Arguments***

4. Applicant's arguments filed April 3, 2003 have been fully considered but they are not persuasive. Applicant's urge that Tang et al. does not disclose or suggest cellulose fibers crosslinked with oxalic acid as recited in the instant claims. Rather, Tang et al. teach oxalic acid is used as a catalyst.

However, careful review of the teachings reveal that Tang et al. describe crosslinking fibrous materials comprising cellulose by treating the cellulose fibers with a mixture of a polyphosphinocarboxylic acid and an esterification catalyst such as oxalic acid to induce esterification and concurrent crosslinking. Tang et al. clearly teach a crosslinking system containing polyphosphinocarboxylic acid and an esterification catalyst such as oxalic acid. See col.1, ln.60-63 and col.2, ln.36. Furthermore, Tang et al. teach that the amount of catalyst used is that amount which is effective to catalyze the esterification reaction which crosslinks the cellulose. See col.2, ln.58-59. Also, Applicants, also use esterification to mean crosslinking, on page 4 of the instant specification, line 22.

Furthermore, Applicants claims are drawn to at least one crosslinking agent. Crosslinking agents can also behave as crosslinking catalysts. Applicant has not provided on record that the oxalic acid of the instant claims behave only as a crosslinking agent and never behave as a crosslinking catalyst. Actually on page 3 of the specification, Applicants cite that cellulose fibers can be stiffened by intrafiber crosslinks between two different portions of the same fiber and interfiber crosslinks

between two different fibers. Nowhere is there a teaching in the instant specification that oxalic acid remains on the two different fibers after the crosslinking has occurred.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 703-305-0178. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 703-308-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-872-9309.

Preeti Kumar  
Examiner  
Art Unit 1751

PK  
June 16, 2003

  
YOGENDRA N. GUPTA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700